

INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB2004/051175

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 H01L21/60 H01L23/485

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 IPC 7 H01L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|----------|--|-----------------------|
| Y | US 6 232 563 B1 (KIM SEONG JIN ET AL) 15 May 2001 (2001-05-15) cited in the application column 4, line 24 - line 62; figures 5A-5D ----- | 1 |
| X | US 5 087 578 A (ENDO KAZUO ET AL) 11 February 1992 (1992-02-11) column 1, line 33 - line 52; figures 1A,1B ----- | 2,7 |
| Y | US 5 358 902 A (VERHAAR ROBERTUS D J ET AL) 25 October 1994 (1994-10-25) cited in the application paragraph '0024!; figures 4A-4F ----- | 1 |
| X | US 2002/048924 A1 (LAY MING-YI ET AL) 25 April 2002 (2002-04-25) cited in the application paragraph '0024!; figures 4A-4F ----- | 3-5 |
| A | US 5 358 902 A (VERHAAR ROBERTUS D J ET AL) 25 October 1994 (1994-10-25) column 5, line 14 - line 28 ----- | 3,6 |
| | | 1-7 |

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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| Date of the actual completion of the international search | Date of mailing of the international search report |
|--|--|
| 17 January 2005 | 25/01/2005 |
| Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl. Fax: (+31-70) 340-3016 | Authorized officer Stirn, J-P |

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Information on patent family members

International Application No

PCT/IB2004/051175

| Patent document cited in search report | | Publication date | | Patent family member(s) | | Publication date |
|--|----|------------------|--|---|--|--|
| US 6232563 | B1 | 15-05-2001 | KR KR | 171099 B1 225398 B1 | | 01-02-1999 15-10-1999 |
| US 5087578 | A | 11-02-1992 | JP JP JP | 1647634 C 3009616 B 63081948 A | | 13-03-1992 08-02-1991 12-04-1988 |
| US 2002048924 | A1 | 25-04-2002 | TW JP US | 464927 B 2002118138 A 2004048202 A1 | | 21-11-2001 19-04-2002 11-03-2004 |
| US 5358902 | A | 25-10-1994 | GB DE DE EP JP JP KR | 2233494 A 69018884 D1 69018884 T2 0405660 A2 2776960 B2 3034539 A 157980 B1 | | 09-01-1991 01-06-1995 07-12-1995 02-01-1991 16-07-1998 14-02-1991 01-02-1999 |